

# **DART SERVICE INSTRUCTION**

**TO AMEND INSTALLATION INSTRUCTIONS IIN-D119-796 REV. G  
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D119-796 REV. 5  
OR LATER APPROVED REVISIONS**

REF. TCCA STC: SH14-45  
REF. FAA STC: SR03504NY  
REF. EASA STC: 10052022  
REF. DGCA INDIA LOA: 07-09/2011-AED  
REF. ANAC STC: 2015S07-16  
REF. CAAP LOA: C-16-0221  
REF. CAAC VSTC: VSTC0757  
REF. RUSSIAN TC: FATA-STC030130  
REF. INDONESIA STC: SR 025

## **1.0 PURPOSE**

DART landing gear kits are provided in a white finish by default. Black-painted landing gear can be ordered by the addition of the suffix "BG" onto the part numbers (eg. D119-796-021 = white, D119-796-021BG = black). The black-painted kits shall be installed per the equivalent white-colored kits in IIN-D119-796 and maintained per ICA-D119-796. The purpose of this DART Service Instruction (DSI) is to provide part lists for the black-painted landing gear kits.

The components in the DART installations are as defined in the Tables of this service instruction. For convenience, only the last three numeric digits of the Part No. are listed on the top row of each table. The quantity of each component which is included in the D119-796-021BG Landing Gear Assembly, for example, is as defined in the column labeled -021.

CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION BRANCH DAO # 01-O-01	
<b>APPROVED</b>  BY: C. PROVENCAL (DE # 03)	
DATE:	21.11.24
CERT. NO.:	SH14-45
ISSUE NO.:	1

**APPROVED**

A	NEW ISSUE		CP	21.11.24
REV.	DESCRIPTION		BY	DATE
DESIGN	CP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA		
DRAWN	CP			
CHECKED	SAD	DRAWING NO.		
MFG. APPR.	SAD	DSI 9870		
APPROVED	CP	REV. A		
DE APPR.	CP	SHEET 1 OF 7		
DATE	21.11.24		TITLE	
			SCALE	
			NTS	
<b>BLACK LANDING GEAR KITS</b>				
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## 2.0 COMPLETE LANDING GEAR ASSEMBLIES (PAINTED BLACK)

Note: These kits come pre-assembled for the convenience of the customer.

ITEM	QTY -021	QTY -023	QTY -025	QTY -031	QTY -033	QTY -035	PART NUMBER	DESCRIPTION
	X						D119-796-021BG	STD LANDING GEAR ASSY WITH STD WEARPAD PROTECTION
		X					D119-796-023BG	STD LANDING GEAR ASSY WITH REINFORCED WEARPLATE PROTECTION
			X				D119-796-025BG	STD LANDING GEAR ASSY WITH TRAINING WEARPLATES
				X			D119-796-031BG	FLOAT COMPATIBLE LANDING GEAR ASSY WITH STANDARD WEARPAD PROTECTION
					X		D119-796-033BG	FLOAT COMPATIBLE LANDING GEAR ASSY WITH REINFORCED WEARPLATE PROTECTION
						X	D119-796-035BG	FLOAT COMPATIBLE LANDING GEAR ASSY WITH TRAINING WEARPLATES
2							D119-646-041BG	STD SKIDTUBE WITH WEARPADS
	2						D119-646-141BG	STD SKIDTUBE WITH FULL LENGTH WEARPLATES & WEARPADS
		2					D119-646-241BG	STD SKIDTUBE WITH TRAINING WEARPLATES
			2				D119-646-043BG	FLOAT SKIDTUBE WITH WEARPADS
				2			D119-646-143BG	FLOAT SKIDTUBE WITH REINFORCED WEARPLATES & WEARPADS
					2		D119-646-243BG	FLOAT SKIDTUBE WITH TRAINING WEARPLATES
1	1	1	1	1	1		D119-796-151BG	FWD CROSSTUBE INSTALLATION WITH PEG STEPS
1	1	1	1	1	1		D119-796-251BG	AFT CROSSTUBE INSTALLATION WITH PEG STEPS
201	48	48	48	48	48	48	D2652	BUSHING
202	2	2	2	2	2	2	D3407-041BG	TOW RING
203	4	4	4	4	4	4	D3417-5	WASHER
204	2	2	2	2	2	2	D3456-1	WASHER
205	48	48	48	48	48	48	D3672-3	WASHER, PHENOLIC
206	48	48	48	48	48	48	D3672-7	WASHER, PHENOLIC
207	2	2	2	2	2	2	D3883-1BG	SADDLE, OUTBOARD, LH
208	2	2	2	2	2	2	D3883-2BG	SADDLE, OUTBOARD, RH
209	2	2	2	2	2	2	D3884-1BG	SADDLE, INBOARD, LH
210	2	2	2	2	2	2	D3884-2BG	SADDLE, INBOARD, RH
211	4	4	4	4	4	4	D3886-041BG	LUG ASSEMBLY
212				4	4	4	D5449-1BG	FLOAT SADDLE WASHER
213				12	12		AN3C45A	BOLT
214	8	8	8	8	8	8	AN3C46A	BOLT
215	16	16	16	16	16	16	AN3C50A	BOLT
216	24	24	24	24	24	24	AN4C6A	BOLT
217	24	24	24	36	36	24	MS21043-3	NUT

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APPROVED	DESIGN	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
	DRAWN	CP			
	CHECKED	SAD	DRAWING NO. DSI 9870	REV. A SHEET 2 OF 7	
	MFG. APPR.	SAD			
	APPROVED	CP	TITLE BLACK LANDING GEAR KITS NTS	SCALE NTS	
	DE APPR.	CP <i>gp</i>			
	DATE	21.11.24			
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ITEM	QTY -021	QTY -023	QTY -025	QTY -031	QTY -033	QTY -035	PART NUMBER	DESCRIPTION
218	26	26	26	26	26	26	MS21043-4	NUT
219	8	8	8	8	8	8	MS21043-5	NUT
220	8	8	8	8	8	8	MS21250-05048	BOLT
221	24	24	24	48	48	24	NAS1149C0332R	WASHER
222	48	48	48	48	48	48	NAS1149C0432R	WASHER
223	16	16	16	16	16	16	NAS1149C0532R	WASHER
224	2	2	2	2	2	2	MS21920-28	CLAMP (SHIPPED LOOSE WITH KITS)

### 3.0 STANDARD GEAR CROSSTUBES (PAINTED BLACK)

Item	QTY -101	QTY -201	QTY -103	QTY -203	QTY -141	QTY -241	QTY -151	QTY -251	Part Number	Description
	X								D119-796-101BG	FWD CROSSTUBE INSTALLATION WITH PEG STEPS
		X							D119-796-201BG	AFT CROSSTUBE INSTALLATION WITH PEG STEPS
			X						D119-796-103BG	FWD CROSSTUBE INSTALLATION W/O PEG STEPS
				X					D119-796-203BG	AFT CROSSTUBE INSTALLATION W/O PEG STEPS
					1	X		1	D119-796-141BG	CROSSTUBE INSTALLATION, STANDARD FWD, W/O PEG STEPS
						1		X	D119-796-241BG	CROSSTUBE INSTALLATION, STANDARD AFT, W/O PEG STEPS
		1						X	D119-796-151BG	CROSSTUBE INSTALLATION, STANDARD FWD, WITH PEG STEPS
			1					X	D119-796-251BG	CROSSTUBE INSTALLATION, STANDARD AFT, WITH PEG STEPS
1					4	4			D2873-043	RADIUS BLOCK
2	8	8	8	8					D3672-7	WASHER
3						1			D5122-1	CENTER SUPPORT
4						6			D5123-1	CLAMP CUSHION
5					4		4	4	D5123-3	CLAMP CUSHION
6						2			D5123-5	CLAMP CUSHION
7						2			D5124-1	FWD SUPPORT
8						1			D5134-041BG	DAMPER SUPPORT ASSY, LH
9						1			D5134-042BG	DAMPER SUPPORT ASSY, RH
10						1			D5136-1	CONTACT PAD, LH
11						1			D5136-2	CONTACT PAD, RH
12							2		D5149-041BG	FWD STEP ASSY

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APPROVED	DESIGN	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
	DRAWN	CP				
	CHECKED	SAD	DRAWING NO. DSI 9870	REV. A SHEET 3 OF 7		
	MFG. APPR.	SAD				
	APPROVED	CP	TITLE BLACK LANDING GEAR KITS NTS	SCALE NTS		
	DE APPR.	CP <i>91</i>				
	DATE	21.11.24				
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Item	QTY -101	QTY -201	QTY -103	QTY -203	QTY -141	QTY -241	QTY -151	QTY -251	Part Number	Description
13								2	D5149-043BG	AFT STEP ASSY
14						2			D5152-041	FWD POST MOUNT ASSY
15							2		D5152-043	AFT POST MOUNT ASSY
16							2		D5305-1BG	SHIM
17							2		D5515-1	GROUNDING CLAMP
18							2		AN174-3A	BOLT
19	12	12	12	12					AN5C7A	BOLT
20	4	4	4	4					AN5C32A	BOLT
21						16			CR3212-4-07	RIVET
22						16			CR3212-4-08	RIVET
23							4		MS21920-22	CLAMP
24						4			MS21920-24	CLAMP
25							6	4	MS21920-25	CLAMP
26		2			2		2		MS21920-28	CLAMP
27	4	4	4	4					MS21250-05048	BOLT
28							2		MS21042-3	NUT
29							2		MS21042-4	NUT
30	4	4	4	4					MS21043-5	NUT
31							2		MS27039-1-08	SCREW
32							4		NAS1149D0332J	WASHER
33							4		NAS1149D0432J	WASHER
34	8	8	8	8					NAS1149C0532R	WASHER
35	12	12	12	12					NAS1149C0563R	WASHER
100		1		1					DP460	SCOTCH WELD ADHESIVE (37mL)

#### 4.0 CROSSTUBE ACCESSORY KITS (PAINTED BLACK)

Item	QTY -011	QTY -013	QTY -015	Part Number	Description
	X			D119-796-011BG	FWD PEG STEP KIT
		X		D119-796-013BG	AFT PEG STEP KIT
			X	D119-796-015BG	FLOAT PROTECTION KIT
101	4	4		D5123-3	CLAMP CUSHION
102	2			D5149-041BG	FWD STEP ASSY
103		2		D5149-043BG	AFT STEP ASSY
104			4	D5449-1BG	FLOAT SADDLE WASHER
105	4			MS21920-22	CLAMP
106		4		MS21920-25	CLAMP

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DESIGN	CP	DRAWING NO. DSI 9870	HAWKESBURY, ONTARIO, CANADA	REV. A SHEET 4 OF 7
DRAWN	CP			
CHECKED	SAD			
MFG. APPR.	SAD			
APPROVED	CP			
DE APPR.	CP <i>91</i>			
DATE	21.11.24			SCALE NTS
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## 5.0 STANDARD SKIDTUBE REPLACEMENTS (PAINTED BLACK)

Item	Qty -041	Qty -141	Qty -241	Part Number	Description
	X			D119-646-041BG	REPLACEMENT STANDARD SKIDTUBE WITH WEARPADS
		X		D119-646-141BG	REPLACEMENT STANDARD SKIDTUBE WITH FULL LENGTH WEARPLATES & WEARPADS
			X	D119-646-241BG	REPLACEMENT STANDARD SKIDTUBE WITH TRAINING WEARPLATES
1	1			D3887-041BG	STANDARD SKIDTUBE ASSY. WITH WEARPAD
2	1			D2855-3BG	*CAP (AFT)
2A	1			D2855-5BG	*CAP (FWD)
3	24			D3492-045BG	*PLUG ASSY.
4	2			D3672-1	*PHENOLIC WASHER (AFT CAP)
7	5			D3847-1	*WEARPAD
8	1			D3847-11	*WEARPAD
9	2			AN3C5A	*BOLT (AFT CAP)
9A	2			MS24694-C52	*SCREW (FWD CAP, DSI 9594)
11	24			AN3C5A	*BOLT
11A	6			AN3C4A	*BOLT (UNUSED WEARPAD HOLES)
12	32			NAS1149C0332R	*WASHER
13	30			ALS4-1032-130	*INSERT
20		1		D3887-043BG	STANDARD SKIDTUBE ASSY. WITH WEARPLATE & WEARPAD
21		1		D2855-3BG	*CAP (AFT)
21A		1		D2855-5BG	*CAP (FWD)
22		24		D3492-045BG	*PLUG ASSY.
23		2		D3672-1	*PHENOLIC WASHER (AFT CAP)
26		1		D3847-043	*FWD WEARPLATE ASSY
27		1		D3847-045	*CENTER WEARPLATE ASSY
28		1		D3847-047	*AFT WEARPLATE ASSY
29		5		D3847-1	*WEARPAD
30		1		D3847-11	*WEARPAD
31		30		AN3C5A	*BOLT
32		32		NAS1149C0332R	*WASHER
34		2		AN3C5A	*BOLT (AFT CAP)
34A		2		MS24694-C52	*SCREW (FWD CAP, DSI 9594)
35		30		ALS4-1032-130	*INSERT
40			1	D3887-045BG	STANDARD SKIDTUBE ASSY. TRAINING WEARPLATE
41			1	D2855-3BG	*CAP (AFT)
41A			1	D2855-5BG	*CAP (FWD)
42			2	D3672-1	*PHENOLIC WASHER (AFT CAP)
43			2	AN3C5A	*BOLT (AFT CAP)
43A			2	MS24694-C52	*SCREW (FWD CAP, DSI 9594)

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APPROVED	DESIGN	CP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA  DRAWING NO. <b>DSI 9870</b> REV. A SHEET 5 OF 7  TITLE <b>BLACK LANDING GEAR KITS</b> SCALE NTS	
	DRAWN	CP		
	CHECKED	SAD		
	MFG. APPR.	SAD		
	APPROVED	CP		
	DE APPR.	CP		
	DATE	21.11.24		
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Item	Qty -041	Qty -141	Qty -241	Part Number	Description
44			1	D3849-041	*FWD TRAINING WEARPLATE ASSY
45			1	D3849-043	*AFT TRAINING WEARPLATE ASSY
51			16	D3904-1	*WASHER
52			8	AN3C46A	*BOLT
53			8	MS21043-3	*NUT
55			4	NAS1149C0332R	*WASHER
55A			8	D3492-045BG	*PLUG ASSY. (DSI 9734)

\* DENOTES THAT PART IS INCLUDED WITH ASSEMBLY ABOVE

## 6.0 FLOAT SKIDTUBE REPLACEMENTS (PAINTED BLACK)

Item	Qty -043	Qty -143	Qty -243	Part Number	Description
	X			D119-646-043BG	REPLACEMENT FLOAT SKIDTUBE WITH WEARPADS
		X		D119-646-143BG	REPLACEMENT FLOAT SKIDTUBE WITH FULL LENGTH WEARPLATES & WEARPADS
			X	D119-646-243BG	REPLACEMENT FLOAT SKIDTUBE WITH TRAINING WEARPLATES
1	1			D3905-041BG	FLOAT SKIDTUBE ASSY. WITH WEARPAD
2	1			D2855-3BG	*CAP (AFT)
2A	1			D2855-5BG	*CAP (FWD)
3	24			D3492-045BG	*PLUG ASSY.
4	2			D3672-1	*PHENOLIC WASHER (AFT CAP)
7	8			D3847-1	*WEARPAD
8	1			D3847-11	*WEARPAD
9	2			AN3C5A	*BOLT (AFT CAP)
9A	2			MS24694-C52	*SCREW (FWD CAP, DSI 9594)
11	36			AN3C5A	*BOLT
11A	6			AN3C4A	*BOLT (UNUSED WEARPAD HOLES)
12	44			NAS1149C0332R	*WASHER
13	42			ALS4-1032-130	*INSERT
14	6			NAS1149C0416R	*WASHER (DSI 9685)
15	3			AN4C46A	*BOLT (DSI 9685)
15A	3			MS21043-4	*NUT (DSI 9685)
16	6			D5101-3	*INSERT (DSI 9685)
16A	6			D5101-5	*INSERT (DSI 9685)

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DESIGN	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
DRAWN	CP	
CHECKED	SAD	DRAWING NO. DSI 9870
MFG. APPR.	SAD	
APPROVED	CP	REV. A SHEET 6 OF 7
DE APPR.	CP <i>9</i>	
DATE	21.11.24	SCALE NTS
TITLE BLACK LANDING GEAR KITS		
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Item	Qty -043	Qty -143	Qty -243	Part Number	Description
20		1		D3905-043BG	FLOAT SKIDTUBE ASSY. WITH WEARPLATE & WEARPAD
21		1		D2855-3BG	*CAP (AFT)
21A		1		D2855-5BG	*CAP (FWD)
22	24			D3492-045BG	*PLUG ASSY.
23	2			D3672-1	*PHENOLIC WASHER (AFT CAP)
26	1			D3847-043	*FWD WEARPLATE ASSY
27	1			D3847-045	*CENTER WEARPLATE ASSY
28	1			D3847-049	*AFT WEARPLATE ASSY
29	8			D3847-1	*WEARPAD
30	1			D3847-11	*WEARPAD
31	42			AN3C5A	*BOLT
32	44			NAS1149C0332R	*WASHER
34	2			AN3C5A	*BOLT (AFT CAP)
34A	2			MS24694-C52	*SCREW (FWD CAP, DS1 9594)
35	42			ALS4-1032-130	*INSERT
36	6			NAS1149C0416R	*WASHER (DSI 9685)
37	3			AN4C46A	*BOLT (DSI 9685)
38	6			D5101-3	*INSERT (DSI 9685)
38A	6			D5101-5	*INSERT (DSI 9685)
40		1		D3905-045BG	FLOAT SKIDTUBE ASSY. TRAINING WEARPLATE
41		1		D2855-3BG	*CAP (AFT)
41A		1		D2855-5BG	*CAP (FWD)
42	2			D3672-1	*PHENOLIC WASHER (AFT CAP)
43	2			AN3C5A	*BOLT (AFT CAP)
43A	2			MS24694-C52	*SCREW (FWD CAP, DS1 9594)
44	1			D3849-047	*FWD TRAINING WEARPLATE ASSY
45		1		D3849-045	*AFT TRAINING WEARPLATE ASSY
48		1		D3847-1	*WEARPAD
49		1		D3847-11	*WEARPAD
50		10		ALS4-1032-130	*INSERT
51a		16		D3904-1	WASHER
51b		24		D3411-3	WASHER
52		4		AN3C46A	*BOLT
53		8		MS21043-3	*NUT
54a		10		AN3C5A	*BOLT
54b		4		AN3C50A	BOLT
55		12		NAS1149C0332R	*WASHER
56		8		D3492-045BG	*PLUG ASSY. (DSI 9734)
57		6		NAS1149C0416R	*WASHER (DSI 9685)
58		3		AN4C46A	*BOLT (DSI 9685)
58A		3		MS21043-4	*NUT (DSI 9685)
59		6		D5101-3	*INSERT (DSI 9685)
59A		6		D5101-5	*INSERT (DSI 9685)

\* DENOTES THAT PART IS INCLUDED WITH ASSEMBLY ABOVE

APPROVED	DESIGN	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
	DRAWN	CP				
	CHECKED	SAD	DRAWING NO. <b>DSI 9870</b>	REV. A SHEET 7 OF 7		
	MFG. APPR.	SAD				
	APPROVED	CP	TITLE <b>BLACK LANDING GEAR KITS</b>	SCALE NTS		
	DE APPR.	CP <i>9</i>				
	DATE	21.11.24				
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